

REMARKS

In the Office Action, the Examiner rejected claims 1-17 under 35 USC §103. These objections and rejections are fully traversed below. In addition, Applicant has amended the claims to correct various typographical errors.

Applicant acknowledges that 18-43 have been withdrawn from consideration due to the previous restriction requirement. Claims 1-17 remain pending.

Reconsideration of the application is respectfully requested based on the following remarks.

REJECTION OF CLAIMS UNDER 35 USC §103

In the Office Action, the Examiner rejected claims 1-17 under 35 U.S.C. 103(a) as being unpatentable over Heller et al, U.S. Publication No. 2002/0147837, ('Heller' hereinafter) in view of Zhang, U.S. Patent No. 6,810,259, ('Zhang' hereinafter), in further view of Rai et al, U.S. Patent No. 6,377,982, ('Rai' hereinafter).

The present invention provides proxy mobile IP support for a node that changes its location within a network. This is accomplished, in part, through the communication between access points within the network. More particularly, access point information including information identifying an access point subnet and a gateway may be transmitted among access points, enabling an access point to compare a received data packet with the access point subnet to determine whether to send a registration request on behalf of the node using the gateway as the node's Home Agent

Heller discloses proxy mobile node capability for Mobile IP. See title. Heller discloses receiving a link layer message from a mobile node. Mobile IP information is then obtained from a database based on the identity of the mobile node. A registration request is then sent on behalf of the mobile node. See paragraph [0018].

It is important to note Heller neither discloses nor suggests that the information that is obtained from a database includes an access point subnet and a gateway. In fact, the database

of Heller merely includes information needed to perform the new mobile IP registration, such as the IP address for the mobile node, foreign agent, and home agent. See paragraph [0018]. There is no indication that the information in the database enables a determination to be made as to whether to send a registration request on behalf of the node using a particular gateway.

In addition, the Examiner admits that Heller fails to specify how the database obtains the stored information. As a result, Heller fails to disclose or suggest receiving information from another access point. Thus, Heller neither discloses nor suggests determining whether to send a registration request on behalf of the node via a particular gateway by comparing a received data packet with an access point subnet identified in access point information previously received from another access point.

Zhang discloses a location update protocol. See title. More particularly, cache entries are transferred or copied from one base station to another base station. See col. 5, lines 13-21. The cache entries include subscriber profile information. See Abstract. Each profile includes information necessary for executing call-processing operations associated with the subscriber. See col. 1, lines 31-41. However, location register information is not included in the subscriber profiles. See col. 1, lines 31-41. As a result, the cache entries that are copied do not include location information such as HLR or VLR information. Accordingly, Zhang neither discloses nor suggests transmitting access point information identifying an access point subnet and a gateway among access points.

The Examiner admits that “Heller in view of Zhang does not expressly disclose enabling the third access point to compare a received data packet with the access point subnet to determine whether to send a registration request on behalf of the node. Rather Heller in view of Zhang seems to suggest that an access point will transmit a registration request whenever an access point receives a link layer message from a mobile node identifying itself.” As such, Applicant respectfully submits that Heller in view of Zhang teach away from determining whether to send a registration request via a particular gateway.

The Examiner seeks to cure the deficiencies of Heller and Zhang with Rai. Rai teaches that the Mobile IP standard requires that when a mobile node changes the subnet to which it is attached, it sends a registration request message to a home agent in its home subnet. See col. 41, lines 15-20. However, it is important to note that Rai requires that the mobile node send such a registration request. Thus, Rai fails to disclose or suggest sending access point information enabling an access point to determine whether to send a registration request on behalf of a node that does not support Mobile IP via a particular gateway based

upon an access point subnet identified in the access point information. In other words, since the mobile node of Rai sends its own registration request, it would be unnecessary to send access point information identifying an access point subnet and a gateway among access points to enable access points to compose a registration request on behalf of the node. As a result, Applicant respectfully submits that Rai teaches away from the claimed invention.

The claimed invention enables an access point to determine whether to send a registration request on behalf of a node via a particular gateway based upon an access point subnet. This is accomplished by “sending the access point information to a third access point that supports Mobile IP, thereby enabling the third access point to compare a received data packet with the access point subnet to determine whether to send a registration request on behalf of the node using the gateway as the node’s Home Agent.” None of the cited references, separately or in combination, discloses or suggests sending information identifying an access point subnet for making this determination. Similarly, none of the cited references, separately or in combination, discloses or suggests sending information identifying a gateway, enabling another access point to send a registration request to the appropriate gateway.

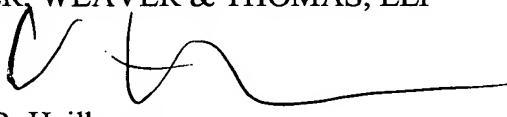
In view of the above, Applicants respectfully submit that the independent claims are patentable over the cited art. The dependent claims depend from one of the independent claims and are therefore patentable for at least the same reasons. However, the dependent claims recite additional limitations that further distinguish them from the cited references. The additional limitations recited in the independent claims or the dependent claims are not further discussed, as the above discussed limitations are clearly sufficient to distinguish the claimed invention from the cited references. Thus, it is respectfully requested that the Examiner withdraw the rejection of the claims under 35 USC §103(a). Accordingly, Applicant respectfully submits that the pending claims are patentable over the cited art.

SUMMARY

An early Notice of Allowance is earnestly solicited. If there are any issues remaining which the Examiner believes could be resolved through either a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number listed below.

Applicants hereby petition for an extension of time which may be required to maintain the pendency of this case, and any required fee for such extension or any further fee required in connection with the filing of this Amendment is to be charged to Deposit Account No. 50-0388 (Order No. CISC263).

Respectfully submitted,
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